

NONDALTON

Health Clinic



Alaska Rural Primary Care Facility

Code and Condition Survey Report

July 23, 2001



I. EXECUTIVE SUMMARY

Overview

The Nondalton Clinic is located in a small frame building reportedly constructed in 1992 along the main road in Nondalton. It has deteriorated significantly due to extreme climatic conditions and heavy use. The clinic has outgrown its current building. The lack of adequate space for medical supplies and the absence of a trauma room prevent the staff from providing the level of care needed on a daily and emergency basis. The staff at Nondalton noted that they treat an unusual number of emergency situations.

Renovation and Addition

The existing clinic is 1216 s.f. and would require an addition of 784 s.f. to meet the 2000 s.f. minimum area recommended for a medium clinic by the Alaska Rural Primary Care Facility study. The floor plan layout would require the remodel of approximately 12% of the interior space. The cost of required renovations and code upgrades, combined with the cost of a new addition equal 84% of the cost of a new clinic.

New Clinic

Because the cost of renovation and addition is more than 75% of the cost of new construction, a new clinic of at least 2000 s.f. should be built to replace the existing clinic. Although a specific site was not noted during the survey visit, it appears that several sites are available near utilities and of adequate size to accommodate the new clinic.

II. GENERAL INFORMATION

A. The Purpose of the Report

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility (ARPCF) assessment, planning, design, and construction. The purpose of the Code and Condition Survey Report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need among the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information gathered will be tabulated and analyzed according to a set of fixed criteria that will yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most practical and cost effective means to bring the clinics up to a uniform standard of program and construction quality. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 1 and 2.

B. The Assessment Team

The survey was conducted on June 5, 2001 by John Biggs, AIA, Architects Alaska and Bill Henriksen, PE, RSA Engineering. Randy Muth of ANTHC was the team escort. Randy made introductions and conducted the village briefings. Team members who assisted in the preparation of the report included Stephen Schwicht and Ian VanBlankenstein of NANA/DOWL, project managers for the survey team, and Jay Lavoie of Estimations, Inc.

C. The Site Investigation

The format adopted is similar to the “Deep Look”, a facility investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. This written report includes a floor plan of the clinic and a site plan indicating the existing clinic site. Additional information gathered during the site investigation that is referred to in the report, which includes sketches of building construction details, a building condition checklist, and proposed plans for village utility upgrades, are not included with this report. This information is available for viewing at ANTHC’s Anchorage offices and will be held for reference.

III. CLINIC INSPECTION SUMMARY

A. Community Information

The community of Nondalton has a current population of 221 as published in the 2000 U.S. Census. It is located 190 miles southwest of Anchorage in the Iliamna Recording District and is a part of the Bristol Bay Native Corporation. Refer to the attached Alaska Community Database prepared by the Alaska Department of Community and Economic Development in Appendix C for additional community information.

B. General Clinic Information

The Nondalton Clinic was reportedly constructed in 1992. This building is approximately 1216 s.f. in size and is constructed of conventional frame walls, floor, and roof. The building has one main entry on the front and a central corridor. The building suffers from a lack of accessibility at the entry and a lack of accessibility in the trauma room. The waiting area is large, however, the entry into the trauma room appears to lack sufficient turning radius for a gurney, and no gurney access is possible to the exam room at the end of the corridor.

C. Program Deficiency Narrative

The main programmatic deficiencies pertain to lack of adequate storage and the absence of handicapped and trauma access. The clinic does not have arctic entries and lacks a second exit. The clinic also has no separate area for medications. In addition, the clinic lacks acoustic insulation in interior partitions, which compromises privacy and confidentiality. Finally, the corridor is too narrow for gurney access to the exam room.

The following table illustrates a comparison between the current actual square footage (SF) and the 2000 s.f. minimum area recommended by the Alaska Rural Primary Care Facility study for a Medium Clinic:

Table 1 – ARPCF Clinic Area Comparison

Purpose/Activity	#	Existing Net SF	#	ARPCF Medium	Difference
Arctic Entry	-		2	2 @ 50=100	100
Wait/Recep/Closet	1	151	1	150	-1
Trauma/Telemed/Exam	1	200	1	200	0
Office/Exam	1	138	1	150	12
Admin./Records	1	187	1	110	-77
Pharmacy/Lab	-		1	80	80
Portable X-ray	-		-	-	-
Spec. Clinic/Health Ed./Conf.	-		1	150	150
Patient Holding/Sleep Room	1	66	1	80	14
Storage	1	94	1	100	6
HC toilet	1	76	2	2 @ 60=120	44
Janitorial Closet	1	50	1	30	-20
Total Net Area	-			1270	-
Mechanical Room	-			147	147
Morgue	-			30	30

The Nondalton Clinic has a current gross area of 1216 s.f. This would require a gross building area expansion of approximately 784 s.f. in order to meet the 2000 s.f. minimum requirements for a Medium clinic.

An analysis of the existing building's program functions follows. Please also refer to the floor plan in Section H:

- **Arctic Entries:** None provided.
- **Waiting:** The waiting area generally meets requirements but lacks appropriate acoustic separation necessary for confidentiality.
- **Trauma/Telemed/Exam:** The trauma room is approximately the size of the guideline area, however, equipment and furniture clutter the space.
- **Office/Exam:** The exam room is small but functional.
- **Administration/Records:** The administrative area appeared organized and efficient.

- **Pharmacy/Lab:** None provided.
- **Specialty Clinics:** Specialty clinics require the use of one of the exam rooms and the corridor space. This is a major disruption to clinic activities.
- **Patient Holding/Sleep:** The sleeping area was combined with the kitchen. This space lacked appropriate window exits and was essentially a closet converted into a bedroom/breakroom.
- **Storage:** A small storage (4' x 5') room keeps the main medical/medicinal supplies. It is well organized but much smaller than is needed.
- **HC Toilet Room:** The toilet room is undersized for handicapped access and lacks accessible fixtures.
- **Janitor Closet:** The janitorial area was combined with a mechanical area.
- **Ancillary Spaces:** There are no ancillary spaces in this clinic.

D. Architectural/Structural Condition

The clinic area is approximately 32' x 38'. There is some settlement apparent by small cracks at gypsum board finishes and by the main exit door, which sticks. The foundation is wood pilings supporting 2x12 floor beams. The floor structure is 2x12 joists with plywood subfloor and hardboard soffit panels. The walls are generally 2x6 framing with T-111 plywood siding and gypsum wall board interior. The ceiling is gypsum board supported by 2x4 framing spanning between bearing walls. The roof is metal roofing over plywood decking on 2x6 framing. The wall and ceiling insulation appears to be R-11 and R-19 batt insulation, respectively. There is some sagging apparent at the roof due to snow loads and inadequate structural strength. In addition, significant weathering and water stains are apparent at the roof edges and exterior wall surfaces. The ceiling framing does not appear adequate to support any additional loading and should be reinforced or replaced. The roof and ceiling appear to be at their limit for the size of the existing building, and should be replaced. A staff member noted that during renovation, the building "wobbled" dangerously. This could indicate a lack of diagonal bracing support in the exterior walls, floor, and roof systems.

E. Site Considerations

The current site could accommodate a building addition. Multiple sites appear available along the main road with access to site utilities including village water, sewer, power, and telephone service. As typical for most sites in Nondalton, the new building will require a gravel pad prior to construction. A final decision has not been reached by the community regarding a preferred clinic location.

F. Mechanical Condition

Heating and Fuel Oil: Heating for the building is provided by two Monitor 41 oil heaters. One is located in the waiting area and the other is at the end of the hallway at the back of the building. This heating system is inadequate for heating the clinic uniformly since each unit provides only a single, highly variable zone of heating. The nature of this heating arrangement is such that rooms where privacy or security is required will rapidly cool below the comfort zone and could also lead to freezing of plumbing and/or medications. A single 55-gallon drum serves the two Monitor heaters. The drum is not U.L. listed, is installed too close to the building, not properly supported, or vented and the piping is not acceptable. The entire fuel system from the tank to the heaters needs to be replaced and the new UL listed tank needs to be installed a minimum of 5 feet away from the building.

Ventilation: There is no mechanical ventilation for the clinic. The sources of ventilation for the occupied spaces are through operable windows. The clinic needs to be provided with a mechanical ventilation system and should not rely on operable windows alone. The restroom has an exhaust fan, but it is not ducted to the outside of the building. The vent terminates in the attic area. There is no exhaust fan for the janitor closet.

Plumbing: Domestic water is provided from the village water system, hot water is provided from a 20-gallon electric water heater located in the janitor closet. The sewer service size for the building is 4" and it gravity flows to the village sewer system. The sewer lines below the building have been heat traced, but the insulation is falling off the pipes. The insulation needs to be replaced and secured correctly. Plumbing fixtures in the clinic include a toilet, lavatory, and bath tub/shower in the restroom, a laundry sink in the janitor closet (installed without a vacuum breaker) and a double compartment sink in the trauma room and one of the exam rooms. The plumbing fixtures in the restrooms do not meet ADA requirements.

G. Electrical Condition

Power: A 120/240-volt single-phase overhead service is provided to the building. A 100 amp main disconnect is provided at the meter. Grounding from the meter base is provided to a grounding rod. The clinic is served by a 200 amp with a maximum capacity of 24 breakers, all of which have been installed. Six of those breakers are spares. Service to the panel is provided with aluminum wires. All wires from the panel were run in Romex. Receptacles were provided throughout the clinic building, but the staff indicated they need additional receptacles in the exam and trauma areas. The use of plug strips was not noted for those areas, but the staff indicated they need to use extension cords into the trauma area when there is an emergency. Receptacles in the restroom and within 10 feet of the kitchen/laboratory sink were not GFCI protected. There were no receptacles on the outside of the building.

Lighting and Emergency Fixtures: Interior lighting is provided by surface mounted florescent fixtures throughout the building. The fixtures use four 4-ft., 35 watt, 40F bulbs. The lighting levels were not measured, but appear adequate. The fixtures are fairly low quality but are in good condition. Exterior lighting was provided with incandescent fixtures at the

entrances only. The fixtures were in poor condition with no covers for the bulbs and they need to be replaced. There are no emergency light fixtures in the clinic. An exit fixture was installed over the front entrance into the building. We were unable to check the fixtures for proper battery operation. Another needs to be added near the back entrance. There were two smoke detectors installed in the building one in the hallway and one in the trauma room. Both smoke detectors had dead batteries.

Telecommunication: Four phone lines serve the building, two for the local incoming line, a fax line and a dedicated line for modem. A Telemed system had been installed at this facility.

H. Existing Facility Floor Plan

See following sheet for the floor plan of the existing clinic.

J. Community Plan

Refer to the attached community plan for location of the existing clinic and the proposed location for the new clinic. If the existing clinic site is the preferred location or if a new site has not yet been selected, only the existing clinic location will be shown.

IV. DEFICIENCY EVALUATION AND COST ASSESSMENT

The attached deficiency reporting forms are based on Public Health Service form AK H SA-43. The forms are numbered sequentially for each discipline starting with **A01** for Architectural and structural deficiencies, **M01** for Mechanical deficiencies and **E01** for Electrical deficiencies.

A. Deficiency Codes

Deficiencies are further categorized according to the following PHS Deficiency codes to allow the work to be prioritized for federal funding, should that apply. Deficiency codes used in this survey include:

- 02 Fire and Life Safety:** These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated building codes including the International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code.
- 03 Safety:** These deficiencies identify miscellaneous safety issues.
- 04 Environmental Quality:** This addresses DEC regulations, hazardous materials and general sanitation.
- 05 Program Deficiencies:** These are deficiencies which show up as variations from space guidelines established in the Alaska Primary Care Facility Facility Needs Assessment Project and as further evaluated through observation at the facility site and documented in the facility floor plans.
- 07 Disability Access Deficiencies:** The items with this category listing are not in compliance with the Americans with Disabilities Act.
- 08 Energy Management:** These deficiencies address the efficiency of heating systems/fuel types and the thermal enclosures of buildings.
- 11 Structural Deficiencies:** These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.
- 12 Mechanical Deficiencies:** These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems.
- 13 Electrical Deficiencies:** These are deficiencies with electrical generating and distribution systems, fire alarm systems and communications systems.
- 14 Utilities:** This category is used for site utilities, as opposed to those within the building and may include sewer lines and water and power distribution.

B. Photographs

Each sheet has space for a photograph. Some deficiencies do not have photos. Photographs do not cover all areas where the deficiencies occur but are intended to provide a visual reference to persons viewing the report who are not familiar with the facility. Additional photographs of the clinic and the surrounding area are included in Appendix B.

C. Cost Estimate General Provisions

New Clinic Construction

- **Base Cost**

The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

- **Project Cost Factors**

Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.

Design Services is included at 10% to cover professional services including engineering and design.

Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Estimated Total Project Cost of New Building**

This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

Remodel, Renovations, and Additions

- **Base Cost**

The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

The cost of Additions to clinics is estimated at a unit cost higher than New clinics due to the complexities of tying into the existing structures.

Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.

- **General Requirements Factor**

General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Contingency for Design Unknowns (Estimating Contingency)**

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

- **Estimated Total Cost**

This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.

- **Project Cost Factors**

Similar to new clinics, the following project factors have been included in Section VI of this report.

Design Services is included at 10% to cover professional services including engineering and design.

Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Estimated Total Project Cost of Remodel/Addition**

This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

V. SUMMARY OF EXISTING CLINIC DEFICIENCIES

The attached table summarizes the deficiencies at the clinic and provides a cost estimate to accomplish the proposed modifications. If all deficiencies were to be addressed in a single construction project there would be cost savings that are not reflected in this tabulation. The total cost of remodel/addition shown in Section VI is intended to show an overall remodel cost that reflects this economy. Refer to Section VI for a comparison of remodel/addition costs to the cost of new construction. The specific deficiency sheets are included in Appendix A.

VI. NEW CLINIC ANALYSIS

The decision on whether to fund new clinic construction or a remodel/addition of the existing clinic is to be determined by comparing the cost of a new facility designed to meet the program requirements of the Alaska Rural Primary Care Facilities minimum area requirements with the projected combined cost of renovating, remodeling and adding onto the existing building to provide an equivalent facility. If the cost of the remodel/addition project is greater than 75% of the cost of constructing an altogether new facility then a new facility is recommended. That ratio is computed as follows:

- **The cost of a new clinic in Nondalton is projected to be:**

Base Anchorage Cost per s.f.	\$183/ s.f.
Medical Equipment Costs @ 17%	\$31
Design Services 10%	\$18
Construction Contingency 10%	\$18
Construction Administration. 8%	\$15
Sub-total	\$265/ s.f.
Area Cost Factor for Nondalton 1.66*	
Adjusted Cost per s.f.	\$440/ s.f.

Total Project Cost of NEW BUILDING 2,000 x \$440 = \$880,000

- **The cost of a Remodel/Renovation/Addition is projected to be:**

Projected cost of code/condition renovations (From the deficiency summary)	
90% of cost of code/condition improvement**	\$249,254 Renovation
Projected cost of remodeling work (See A02)	
1,216 s.f. clinic @ 12% remodel = 150 s.f.	\$16,110 Remodel
Projected cost of building addition (See A01)	
2,000 s.f. – 1,216 s.f. = 784 s.f.	\$312,386 Addition
 Design 10%, Const. Contingency 10%, Const. Admin. 8%	\$161,770

Total Project Cost of REMODEL ADDITION \$739,520

- **Ratio of remodel:new is \$739,520 : \$880,000 = 0.84X**

The cost of a remodel/addition for this clinic would cost 84% the cost of a new clinic, therefore, a new clinic is recommended for this community

* The Area Cost Factor was refined by Estimations, Inc. in July 2001 based on information obtained during the site visit.

** The 90% factor represents economy of scale by completing all renovation work in the same project.

Appendix A: SPECIFIC DEFICIENCIES LISTING

Refer to the attached sheets for the listing of the individual deficiencies and the corrective action recommended.

Appendix B: GENERAL SITE PHOTOGRAPHS

The following sheets provide additional photographic documentation of the existing building and surroundings.

Appendix C: ADCED Community Profile

Refer to the attached document prepared by Alaska Department of Community and Economic Development profiling the community of Nondalton.

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